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Notice of Informal Patent Application, PTO-152

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Art Unit:

Applicant's response dated January 16, 1997 is acknowledged.

Claims 57--68 are pending.

The amended claim 57 recites formula (1) with the values of O, S, SO, SO₂ or CH₂ for X i.e., the six-membered ring contains sulfur or oxygen. The former is classified in subclass 214 and the oxygen analog in subs class 300 of 540. Thus, they are non-art recognized equivalents and patentably distinct. Thus, claim no. 57 is an instance of lack of unity of invention. Claim 57 is considered an improper Markush claim, as it includes two patentably distinct members as set forth above and is so rejected.

Claims 57--68 rejected under 35 U.S.C. 102(b) as being anticipated by NSP 3,975,383.

The claims with A_1 , A_2 , A_3 = aryl; $\mathbf{X} = \mathbf{O}/\mathbf{S}$; m=2; n=0; (c) = \mathbf{S}_{CH2}^{CH2} are embraced by the generic disclosure of prior art, see column 21, formula VIII A. Also see on columns 37 and 38 formula xx for a species disclosure.

A generic disclosure of the prior art directed to a recognizable small class of compounds having common properties which embrace the claimed compounds, is anticipatory notwithstanding the fact the claimed compounds are not specifically named. <u>In re Schaumann et al.</u> (CCPA 1978) 575 F2d 312, 197 USPQ 5; <u>In re Petering et al.</u> (CCPA 1962) 301 F2d 676, 133 USPQ 272; <u>Ex parte Broadbent et al.</u> (POBA 1965) 150 USPQ 468.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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Art Unit:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 57--68 rejected under 35 U.S.C. 103(a) as being unpatentable over Nayler et al. U.S.P. 3,975,383 or Martel et al. U.S.P. 3,962,223.

The prior arts individually teach a generic group of cephems, where R = cyclohexyl, phenyl, tetrahydropyranyl etc., in formula VIII A and X being acylamino groups; See column 21, lines 46-60 of U.S. '383. Also see column 1, lines 65--68 and column 2, lines 1--3. The claims differ from the references by reciting a more limited genus than the reference. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to select any of the species of the genus as taught by the reference, including those of the claims, because an ordinary artisan would have the reasonable expectation that any of the species of the genus would have similar properties and, thus, the same use as the genus as a whole.

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The instantly claimed compounds would have been obvious to one skilled in the art because the indiscriminate selection of "some" from among "many" is considered <u>prima facie</u> obvious. In re Lemin, 141 USPQ 814, National Distillers and chem. Corp. V. Brenner 156 USPQ 163.

The rejections of claims 57--68 of paper # 4 dated 07/16/96 based on 35 USC 112 1st and 2nd paras are withdrawn as applicants 1)amended claim 57 and 2) urge the activity is against particular bacterial infections.

The scope of the instant amended claim 57, is too broad as 1) "heteroaryl" is a value given to A₃; 2) hetro-cyclylamino to x. These 'acyl' groups embrace a host of heterocycles at 7 position. The cited examples in the specification are mostly drawn to aminothiazol as 7-substituent. Thus the specification is not commensurate with the broad scope of the claims. Claims 57--68 are rejected under 35 USC 112, first and second paras, for lack of enablement i.e., how to make.

This application has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is, therefore, respected in promptly correcting any errors of which they may become aware in the specification. Examples of such errors are 1. On page 3 of amended claim 57, third line form bottom, the letter 'l' is missing from 'heterocyclyamino' 2. On page 4 of amended claim 57, line 3 'gorup' is spelled wrong.

It is noted applicants enclose substitute specification. But nowhere does it say this is the disclosure of S.N. 08/470,786.

Art Unit:

The abstract and title should incorporate special substituents of the instant invention.

Any inquiry concerning this communication should be directed to P. K. Sripada at telephone number (703) 308-4717.

Sripada/vrs PK April 15, 1997

> P.K. SRIPADA PATENT EXAMINER

Pek. Sulph.